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## ABSTRACT

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The present invention provides a sealing and restraint apparatus to establish a pressure  
504 boundary for inflatable or expandable spacecraft. The apparatus is capable of  
connecting the flexible pressure boundary of an inflatable spacecraft to the rigid  
506 structure of the spacecraft. The flexible pressure boundary of the present invention  
comprises a gas membrane and a restraint layer. The gas membrane minimizes air  
508 leakage. The restraint layer carries the forces created by the internal pressurization of  
the spacecraft. This apparatus provides a hermetic seal and the structural integrity  
510 necessary to resist internal pressurization forces.

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